The following items shall be labeling accordingly as they apply throughout the project.

Device Type	Device Type Abbreviation	Device Label Required
Air Conditioning	AC	
CCTV	CCTV	X
Cable Modem	CAMODM	X
Cellular Modem	CEMODM	X
Cabinet Monitor	CM	X
Controller, DMS	CNTR-DMS	X
Controller, Traffic Signal	CNTR-TS	X
Controller, Truck Parking Sign	CNTR-TP	X
Controller, Dynamic Trailblazing Panel	CNTR-DTP	X
Controller, Lane Control System	CNTR-LCS	X
Dehydrator	DHYD	X
Digital Video Encoder	DVE	X
Environmental Sensor, Air	ESAR	X
Environmental Sensor, Barometric Pressure	ESBP	X
Environmental Sensor, Precipitation	ESP	X
Environmental Sensor, Control Unit	ESS	X
Environmental Sensor, Sub-Surface	ESSS	
Environmental Sensor, Various	ESVR	X
Environmental Sensor, Visibility	ESVS	X
Environmental Sensor, Wind	ESWD	X
Ethernet Switch	ESW	X
Fiber Splice Enc.	FBRSP	X
Fiber Distribution Unit	FDU	X
Firewall	FW	X
I/O Module	IO	X
Media Converter	MEDIA	X
MVDS	MVDS	X
Power Supply, AC	PSAC	X
Power Supply, DC	PSDC	X
Radio	RADIO	X
Relay	RLY	X
Remote Processor Unit	RPU	X
Surge Suppression, AC	SGAC	X
Surge Suppression, CAT5	SGC5	X
Surge Suppression, Coax	SGCX	X
Surge Suppression, DC	SGDC	X
Surge Suppression, Serial	SGSR	X
UPS SNMP	SNMP	
Solar Panel	SOLAR	
Safety Switch	SSW	X
Switch	SWITCH	X
Terminal Server	TERM	X
Transformer	TRANS	
Lane Control Sign	LCS	X
Dynamic Trailblazing Sign	DTS	X
Truck Parking Sign	TPS	X
Travel Time Sign	TTS	X
Uninterruptible Power Supply	UPS	X
Variable Speed Sign	VSS	X
Radio - Wireless Interconnect Master	WIM	X
Radio - Wireless Interconnect Remote	WIR	X

Device Labeling

Label all devices in the ITS cabinet as shown in the table to the left. Include both the IP Address (for IP devices) and the site naming convention described below. Use ½" P-Touch label (vinyl) with black printing on white label, and a minimum font size of 5 point. Use the "ITS Common Name", excluding the cross street name, from the Asset Management Data Entry Form. Device #'s are only included for device with a device # greater than one (1).

1. ITS Field Devices Label: ITS Field Equipment ID to be the "ITS Common Name" from the Asset Management Data Entry Form.

   Examples:
   I94E-MM123.4-DVE2
   The second DVE at a site on EB I-94 at Mile Marker 123.4

   M10S-MM005.4-ESW
   The first Ethernet Switch on SB M-10 at Mile Marker 5.4

For sub-devices of a main device, power supply for MVDS, label as described below:

2. Sub Device for ITS Field Device Label: (ITS Sub-device) – (ITS Device)
   Examples:
   TERM-MVDS
   The Terminal Server 1 for MVDS1.

   PSDC2-CCTV
   The second DC power supply in the cabinet powering CCTV1.

ITS Cabinet Labeling

Label all ITS cabinets including splice cabinets per the MDOT Special Provision for "Basic Methods and Materials for Intelligent Transportation Systems Work". Use the "Site Common Name", excluding the cross street name, from the Asset Management Data Entry Form. If placing all the text on one line will cause the plaque to be longer than 20 inches, then place the text on two lines.

1. ITS Field Cabinet Label:
   Example:
   I94M @ Anyroad – MM123.4 (Site Common Name)
   I94M-MM123.4 (Cabinet Label)
   The ITS Cabinet for a site at Mile Marker 123.4 in the median on I-94 at Anyroad.

2. Splice Cabinet Label
   Example:
   I94E @ Anyroad - MM123.4 (Site Common Name)
   I94E-MM123.4SP (Cabinet Plaque)
   The Splice Cabinet for a site at Mile Marker 123.4 on eastbound I-94 at Anyroad. The notation shall be used for pump stations and cabinets for the State of Michigan drop locations.

3. ITS Field Cabinet at local intersection Label:
   Example:
   Evergreen-E @ 7 Mile – LA 4500 (Site Common Name)
   Evergreen-E-LA 4500 (Cabinet Label)
   The ITS Cabinet for a site on Evergreen at 7 Mile Rd and address 4500.

Cable Labeling

1. All cables starting and ending inside of the cabinet shall be labeled on both ends with an identical label. Use 1" for Cat5 cables or 1½" for fiber cable, self-laminating label (polyester or vinyl), and a minimum font size of 5 point. Labeling of other Cables inside of the ITS Cabinet shall follow the labeling scheme below.

   (Device From) – (Device To) –- (Cable Type)
   Example:
   TERM-MVDS-TWP
   Twisted Pair cable from MVDS 1 to Terminal Server 1.

   Example:
   TERM3-MVDS2-TWP
   Twisted Pair cable from MVDS 2 to Terminal Server 3.

Cable Type	Cable Type Abbreviation
COMPOSITE CABLE	CC
TWISTED PAIR	TWP
SERIAL	RS-485 RS-422
COAXIAL	COAX
MULTIMODE FIBER	MMFO
SINGLEMODE FIBER	SMFO
POWER CABLE	AC-120/240V DC – xxV

2. Labeling of Ethernet (Cat5E) Cables in Cabinets

   Example:
   (Device From)- (Device To)-(Port #)
   UPS-ESW-04
   Cat5E cable from UPS 1 to Ethernet Switch 1, Port 4.

   (Device From)-(Sub-Device to)-(Device To)-(Port #)
   PSDC2-RADIO-ESW-06
   Cat5E cable from DC Power Supply 2 to Ethernet Switch 1, through Port 6, powering Radio 1.

Labeling Details for Fiber Deployments:

Fiber Device Description	Tape Size	# of Lines	Label Type	Example	Note
Patch Panel *	½"	1 Line	P Touch	FDU-PPA	Patch Panel A in Fiber Hardware Assembly 01
Patch Cord/Jumper**	1½"	1 Line	Self-Laminating	FDU-A02-ESW-09-RX	Jumper cord from Patch Panel A, FDU 1, connector 02 to Ethernet Switch 01, Port 09, Receive (RX) fiber port.
Duplex Patch Cord/Jumper **	1½"	1 Line	Self-Laminating	FDU-C01/C02-ESW-10	Jumper from Patch Panel C1, connectors 01 and 02, to Ethernet Switch , Port 10.
Fiber Pigtail	1"	1 Line	Self-Laminating	BL-BL- W	Pigtail cable from the blue tube, blue fiber in the Fiber Optic Distribution Cable going west to cabinet 194E-MM122.4.
Fiber Distribution Cable	1½"	2 Lines	Self-Laminating	I94E-MM1234-I94E-MM1224-FODC-24	Fiber Optic Distribution cable 01 on I-94 between Cabinet I94E-MM123.4 and I94E-MM122.4, with 24 strands.
Fiber Trunk (Backbone) Cable	1½"	2 Lines	Self-Laminating	I94E-MM1234-I94E-MM1224-FOTC-60	Fiber Optic Trunk cable 01 on I-94 between Cabinet I94E-MM123.4 and I94E-MM122.4, with 60 strands.
Fiber Partner Agency Cable	1½"	2 Lines	Self-Laminating	I94E-MM1234-I94E-MM1224-FOPC-24	Fiber Optic Partner Agency cable 01 on I-94 between Cabinet I94E-MM123.4 and I94E-MM122.4, with 24 strands.

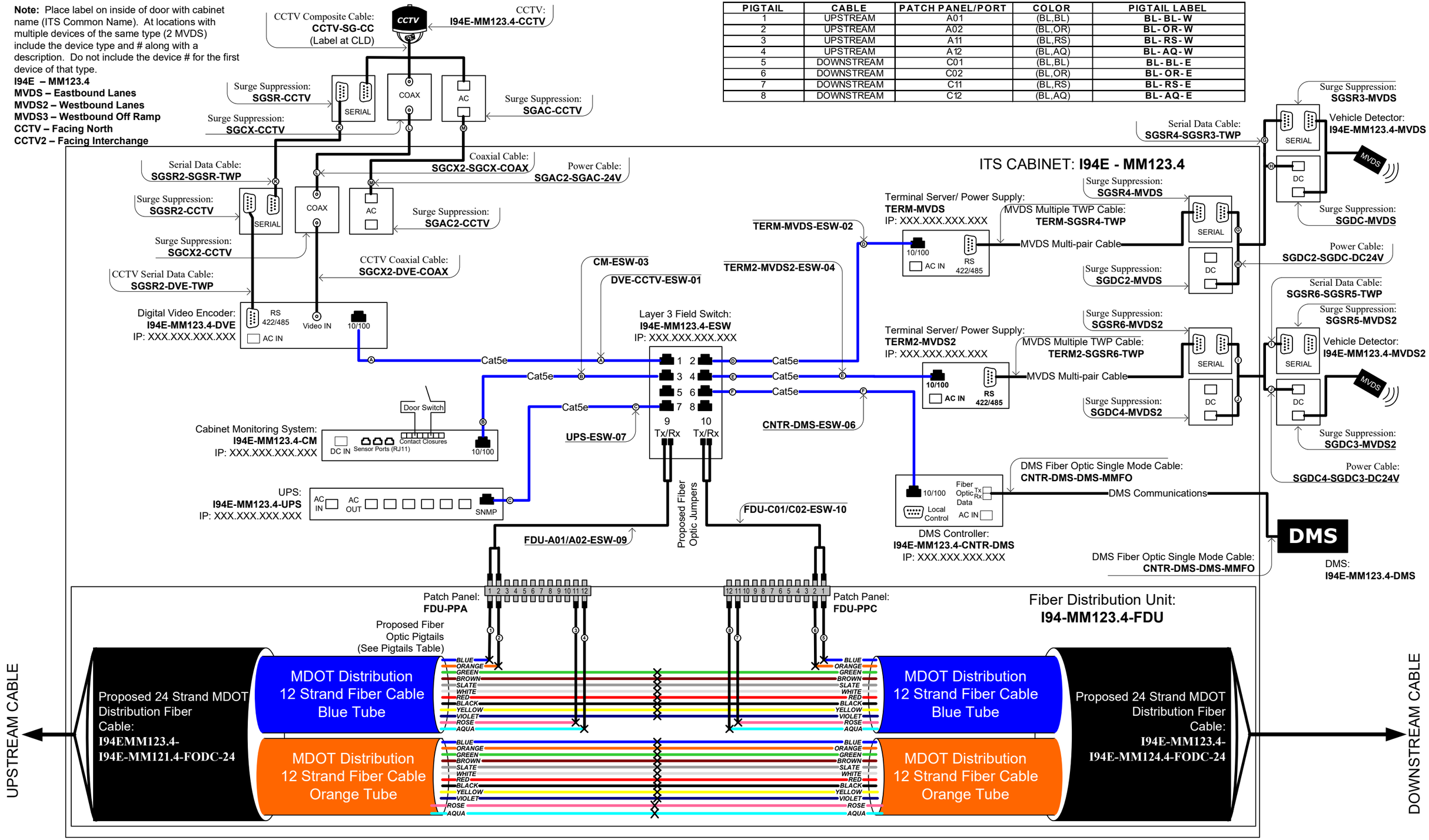
* Individual modules on the patch panel should be labeled and tied to key that references each port to a fiber strand.
** Note all jumpers shall be labeled on both ends with identical labels for easy tracking.

AS-LET PLAN REVISIONS								FOR INFORMATION ONLY	MDOT Michigan Department of Transportation	NO SCALE		DATE:	CS:	ITS CABINET LABELING SCHEME	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				PRINT DATE: 03/12/2019	DESIGN UNIT:	JN:			
											FILE: ITS Cabinet Labeling.pdf	TSC:		1 of 2		

Note: Place label on inside of door with cabinet name (ITS Common Name). At locations with multiple devices of the same type (2 MVDS) include the device type and # along with a description. Do not include the device # for the first device of that type.

I94E – MM123.4
MVDS – Eastbound Lanes
MVDS2 – Westbound Lanes
MVDS3 – Westbound Off Ramp
CCTV – Facing North
CCTV2 – Facing Interchange

PIGTAIL	CABLE	PATCH PANEL/PORT	COLOR	PIGTAIL LABEL
1	UPSTREAM	A01	(BL,BL)	BL-BL-W
2	UPSTREAM	A02	(BL,OR)	BL-OR-W
3	UPSTREAM	A11	(BL,RS)	BL-RS-W
4	UPSTREAM	A12	(BL,AQ)	BL-AQ-W
5	DOWNSTREAM	C01	(BL,BL)	BL-BL-E
6	DOWNSTREAM	C02	(BL,OR)	BL-OR-E
7	DOWNSTREAM	C11	(BL,RS)	BL-RS-E
8	DOWNSTREAM	C12	(BL,AQ)	BL-AQ-E



AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

MDOT Michigan Department of Transportation

NO SCALE

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FILE: ITS Cabinet Labeling 2.pdf

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ITS CABINET LABELING SCHEME
Example for I94E-MM123.4 on EB I-94
2 of 2

DRAWING
SHEET